

PERFORMANCE WORK STATEMENT

MSC N611 INTREGRATED BUSINESS SYSTEMS

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1. MSC INTEGRATED BUSINESS SYSTEMS (BuSys) TASK ORDER

Military Sealift Command Business Systems and Ashore Operations Branch (N611 & N612, identified throughout the remainder of this PWS as N611) manages, operates, and maintains the Commands' Business Systems, as well as interfaces with Navy enterprise Defense Business Systems. MSC Business Systems is comprised of four software intensive systems designed to provide business activity support to personnel, both ashore and afloat. This PWS is not limited to these four systems and can be modified based on future requirement or need of MSC. N611 requires life cycle support for program, engineering and software development, logistics/deployment, and operations/maintenance support for their business systems.

2. BACKGROUND

MSC is one of three component commands reporting to the joint service U.S. Transportation Command, known as USTRANSCOM. USTRANSCOM, headquartered at Scott Air Force Base, IL, is under the command of a four-star flag officer and is responsible for coordination of all common-user Department of Defense (DoD) air, land and sea transportation worldwide. MSC, as a Navy Command, also reports to Fleet Forces Command and Naval Network Warfare Command.

Within MSC the Command, Control, Communications and Computer Systems (C4S) Directorate's (Code N6) purpose is to manage the development and sustainment of all MSC-approved ashore and afloat systems and applications for the entire MSC. N611 is responsible for working with existing and new MSC systems requirements from MSC's Program Managers (PMs) and Functional Directorates (FDs) in order to provide MSC Automated Information System (MSC-AIS) systems development and implementation support services. Below is a synopsis of each system.

Financial Management System (FMS)

MSC-FMS is a Department of the Navy/Defense Finance and Accounting Service (DoN/DFAS) integrated, migratory accounting and finance system for the Navy Transportation Business Area. It supports both the Navy and USTRANSCOM missions of the Military Sealift Command. MSC-FMS consists of multiple systems and is primarily an implementation of Oracle Corporation's Commercial off the Shelf (COTS) Oracle Business Applications (OBA) software for Federal Financials. The software implemented includes the following functionality: Federal General Ledger, Federal Purchasing, Budget Preparation, Federal Payables, and Federal Receivables, Projects, Fixed Assets, and Inventory. In addition, MSC implemented a Financial Data Mart to support internal cost reporting and analysis. The system is fully upgradable and supported by Oracle Corporation through standard patches and releases provided by the vendor.

Other systems within the Financial Management Portfolio include the DoD Standard Procurement System (SPS) and MSC's Budget Preparation System (BPS). Significant work will be dedicated to the MSC Financial Management System (FMS) interface that includes Wide Area Workflow (WAWF) and the Corrective Maintenance Logistics System (CMLS). Future systems and interface upgrades may include Governance Risk and Compliance integrated into the MSC- FMS, the replacement for BPS and SPS, and the interface to the Common Food Management System (CFMS).

MSC-FMS is used world-wide by MSC Headquarters and area commands. MSC-FMS is considered a Target System and is Joint Financial Management Improvement Program (JFMIP) certified. It meets and exceeds numerous Federal Financial Management System Requirements. MSC-FMP meets user and DoD requirements that are consistent with accounting and financial policy, regulatory and statutory requirements. Examples include: Federal Managers' Financial Integrity Act, Anti-Deficiency Act, Chief Financial Officers Act for the Navy Working Capital Fund and Air Force Transportation Working Capital Fund accounting as interpreted and directed by DFAS. MSC-FMS is an ORACLE based solution.

Human Resource Management System (HRMS)

HRMS is the toolkit for MSC N1 Code and falls within the DUSN Defense Undersecretary of the Navy's Defense Business Systems. MSC-HRMS is used to support over 4500 civilian mariners that man MSC afloat units and identify qualified candidates and retain existing Civil Service Mariners to crew the MSC Ships. In addition to using systems

under the HRMS to hire, train, identify qualified candidates, and assign Civil Service Mariners, additional information is maintained such as training needs, certifications, licenses, medical information and immunizations. All of this information is used to determine if a mariner is qualified to fill a vacant position aboard ship. Other systems within the HRMS include the Sea Service Letter Program, Department Head Afloat Management System (DHAMS), and Mariner Advancement Program. HRMS is an ORACLE based solution

Enterprise Data Warehouse (EDW) & Business Intelligence (BI)

EDW is the repository for all MSC functional lines of business data and is used to facilitate decision making at a business functional level as well as the program management level. Data is entered into EDW through multiple MSC Business Systems including Maintenance Data for the Shipboard Automated Maintenance Management (SAMM) Program, Financial Data from FMS, Human Resource Data from HRMS and Logistic Data from ShipCLIP. EDW provides an access of this data to facilitate decisions from MSC Senior Leadership. BI provides MSC Senior Leadership with the necessary tools to conduct cross functional data analysis, validate results of business process changes and provide meaningful metrics to support decision making. Additionally, the Microstrategy's Business Intelligence tool and ORACLE's Reporting tool provide capability to each N-Code to access and manipulate their data for various staff responsibilities. EDW is an ORACLE based database schema, Discoverer is an Oracle based reporting tool, MicroStrategy is the command BI tool

MSC iNavy The Department of the Navy, Chief Information Office (DONCIO)

iNavy is the command collaboration system sponsored by the N9 Code. DONCIO has outlined goals for making all Navy applications and data services Web accessible. The main objectives for this effort are to enable applications to share their data instead of requiring costly replication to multiple platforms and to enable users to obtain the information they need, when and where they need it. The iNavy Portal is a standards-based application that will seamlessly integrate shipboard and shoreside business functions and processes into one portal while complying with DON IT requirements. The development of the MSC iNavy is being achieved through decomposition of legacy application functions and the creation of a more efficient role-based integration of work functions within MSC IS Portal modules. This integrated work function approach will provide a consistent look and feel, increase work throughput efficiency, and provide role-based security which will reduce training requirements and separate application log-ins. The overall mission of the MSC iNavy Portal is to provide the most efficient architecture for increased work efficiency and the transfer of timely information to and from the MSC user community. iNavy is a SPAWAR sponsored solution utilizing Sharepoint.

Logistic Engineering Systems (LES): Engineering Shipboard Systems

Shipboard Automated Maintenance Management (SAMM) is the System for MSC the N7-Code that implement shipboard maintenance programs onboard MSC ships in order to increase operational readiness and to reduce equipment maintenance costs. These programs include Preventive Maintenance, Predictive Maintenance, and Condition Monitoring Systems. These systems schedule and track periodic machinery maintenance and testing as determined by MSC, United States Coast Guard (USCG), American Bureau of Shipping (ABS), and original equipment manufacturers. In a continuing effort to increase operational readiness, equipment performance, and to reduce vessel maintenance costs, MSC has implemented elements of a computerized machinery condition monitoring program which is embodied in the software systems under the MSC SAMM, and MSC Maintenance Information Software Systems (MISS).

Logistic Engineering Systems (LES): Engineering Shoreside Systems

SAMM is also the ashore system for MSC N7-Code that automates various engineering operations in order to increase the effectiveness of ship inspection results tracking, development of work items, the execution work packages and development of maintenance plans. The Engineering Administrative System (EASy) contains the tools necessary for engineering management and Port Engineering personnel to assess the material condition of equipment prior to an inspection or repair period. Access to the EASy application is provided through a network of Web, Citrix and Database Servers owned by the U.S. Government. The following programs are components of the EASy software group.

- Master Maintenance Library

- Feedback Tracking
- Oil Analysis System
- Vibration Analysis System
- Port Engineering for Windows
- Snapshot
- Contract Quality Assessment
- Lighterage Automated Maintenance Management (LAMM)

Logistic Engineering Systems (LES): Logistics Systems

ShipClip/CMLS is the afloat/ashore (respectively system for MSC N4-code that support ships and equipment life cycle logistics support requirements, their assigned missions and respective operational tempos. N611 coordinates and executes IT AIS initiatives and activities to enable Code N4 to implement at its worldwide logistics support program. The program ensures the integrity, accuracy, and timeliness of:

- Shipboard equipment configurations;
- Associated logistics support (including but not limited to storeroom and operating space items);
- Supply Chain Management;
- Asset Visibility for Shore based or shipboard inventories and material in transit;
- Requirements and local budget tracking;
- Government Property administration;
- Exchange location;
- Food Service Management;
- Technical reference documents, to include technical manuals and drawings; and
- Technical data documenting all of the above.

3. OBJECTIVES

Program Management Office/Integrated Product Team (PMO/IPT) support. MSC N6 has chartered a PMO and supporting IPTs to facilitate effective and efficient product deployment and system services for Business System. These efforts are required across the entire acquisition life cycle responsibilities.

Maintain Operations. MSC Business Systems are operational; providing support to MSC functional areas across the globe. Maintenance (break-fix) of these efforts is required across the entire system software life cycle responsibilities to include (but not limited to) problem resolution (triage level2/3), training, deployment/release, break fix, and infrastructure.

Sustainment. MSC Business Systems are operational. The Program Office strives to continually improve, update, enhance, and configure MSC Business Systems providing support to MSC functional areas across the globe.

Sustainment of these efforts are required across the entire system/software life cycle responsibilities to include (but not limited to) problem resolution (triage level2/3), engineering support, system enhancements, and testing

Logistic Support. MSC Business Systems are operational; providing support to MSC functional areas across the globe. Logistic support includes (but not limited to) problem resolution (triage level2/3), training, documentation, and IV&V. Deployment of system and software afloat and ashore, data center, vulnerability management, and certification and accreditation.

4. SCOPE

The scope of this Statement of Work is MSC Business Systems, both ashore and afloat, and supporting infrastructure across the entire systems. The scope also includes the introduction of emerging systems based on future MSC need or requirements.

Systems include but are not limited to: FMS, HRMS, LES to include all affiliated systems/ applications. As Business Systems evolve new systems may be introduced, into the scope of this Business Systems SOW.

Services and Environment: MCS manages numerous environments dependent on Command needs (e.g. EDW, BI, ESTA, GSD, etc...). The infrastructure for these environments and services will be provided in a separate file and available in the technical Library. Maintenance and sustainment of these environments and services are in the scope of this SOW.

System/Software life cycle phases include: managing incoming issues, planning/design, execution, testing, release, deployment and decommissioning.

The Business System IPT is responsible for the deployment of its software aboard the MSC fleet. The Contractor shall maintain the existing MSC Afloat Business Systems installed onboard MSC vessels and used in support of MSC vessels by shore side personnel. This support task is for supporting all MSC Operated Vessels including but not limited to:

- AS 39 Class (2)
- HST 1 Class (2)
- JHSV 1 Class (10)
- LCC 20
- MLP 1 Class (4)
- MUSE Power Barge
- SBX 1
- T-AG 5001
- T-AGM 24
- T-AGM 25
- T-AGOS 19 Class(4)
- T-AGOS 23
- T-AGS 45
- T-AGS 60 Class(4)
- T-AGS 66
- T-AH 19 Class (2)
- T-AK 3005 Class (3)
- T-AK 3008 Class (5)
- T-AK 3015
- T-AK 3017
- T-AKE 1 Class (14)
- T-AKR 295 Class (2)
- T-AKR 296 Class (2)
- T-AKR 300 Class (7)
- T-AKR 310 Class (8)
- T-AO 187 Class (15)
- T-AOE 6 Class (3)
- T-AOT 1125
- T-ARC 7
- T-ARS 50 Class (4)
- T-ATF 166 Class (4)

5. SPECIFIC TASKS

5.1 Task 1 - Task Order (TO) Management

The contractor shall prepare plans in accordance with the Contract Data Requirements Lists (CDRL) describing the technical approach, organizational resources, and management controls to be employed to meet the cost,

performance, and schedule requirements throughout task order execution. The contractor shall provide all necessary personnel, administrative, financial, and managerial resources necessary for the performance of the plans submitted for the task orders under this contract. The contractor shall designate a single point of contact (POC) as the Program Manager (PM) who shall work closely with the IPT Lead in communicating issues, concerns or problems on this contract. This position shall be designated as a key position for the contract. The PM shall have the authority to commit the contractor's organization and make decisions for the contractor's organization in response to Government issues, concerns or problems. The PM shall be readily available to respond to questions, concerns and comments, as well as be proactive in alerting the Government to potential contractual/technical issues. Although Government staff may coordinate with other contractor staff, the PM shall serve as the single contractor representative responsible for resolving all issues, concerns and problems.

5.1.1 Earned Value Support

The contractor shall provide support to develop an Integrated Master Schedule (IMS) that identifies activity dependencies, key milestones, gate reviews, and major deliverables. The contractor shall provide support to update the Communications Plan, develop and maintain a staffing plan, and review and provide input to programmatic and execution processes. Additionally, to mitigate risk, the contractor shall develop and maintain a Contract Funds Status Report (CDRL 9) to help track cost expenditures against performance (refer to cost management guide for details).

Throughout the project life cycle, the contractor shall measure progress against plans, conduct reviews, conduct quality audits, and provide regular project updates and status reports in accordance with the deliverables schedule reflected under Section 9. The contractor shall prepare corrective action plans when performance does not meet established parameters or is outside of the variance thresholds established during the planning phase. The contractor shall participate in and provide input to activities required to identify and resolve risks, issues, and (internal and external) dependencies. The contractor shall report the project management metrics to the government and report on variances during progress meetings and in monthly status reports, in accordance with the deliverables schedule. Deviations from established variance thresholds shall include a description of corrective actions required to resolve the discrepancies. Throughout the project life cycle, the contractor shall update the schedule, cost, risks, and resource plans; realign and add resources, as necessary; and document and implement lessons learned and continual improvement activities.

The contractor shall develop a contract work breakdown structure (CWBS) that reflects contract work to be performed under this SOW, as defined by program release baselines, and program schedule. The contractor shall use the CWBS to develop an IMS aligned with the project schedule, and shall allocate resources (staff, facilities, and equipment) to each CWBS element. The contractor IMS shall include planned events and project milestones from the project schedule; iteration and release activities, task due dates, constraints, and dependencies; and all contract deliverables from contract award. The contractor shall use the IMS to track, report, and manage dependencies and to coordinate between the contractor project team and the Government IPT Lead. The contractor shall create the CWBS and IMS using Microsoft Project, and use it to maintain and revise the IMS baseline for all contractual changes or internal conditions within contract scope that require re-planning or revisions. The contractor shall deliver the IMS baseline, including updates, so it is available for review at all government meetings. The CWBS and IMS shall provide a maximum of five levels of indenture adjusted based on the complexity or size of the effort. The contractor shall ensure the IMS accurately reflects the start and finish dates of all activities, events, and milestones within a ± 24 hour window. The contractor shall adhere to the government's Plan Change Request (PCR) process when making changes to the IMS. The contractor may also be tasked to provide IMS support services to include assisting the IPT Lead in maintaining the government's project execution IMS and processing/submitting SCRs when deviations to the program schedule are required.

Deliverable:

- Earned Value Management strategy within 30 days after kickoff, updated as required (CDRL 01)
- CWBS updated as required (CDRL 02) (This applies only to Cost Reimbursable CLNS)

5.1.2 Program Review(s)

5.1.2.1 Monthly Review

Reviews between the contractor PM and the government IPT Lead will be conducted at a minimum monthly. The contractor PM shall meet with the Government IPT Lead to discuss individual projects prior progress, future plans, issues, risks, and action item status. Monthly reviews provide the government insight into the Project/System based on production, requirements, risk, cost, schedule, and performance. It is critical to address the entire system, including present status, progress relative to plan, and future commitments, focus may inadvertently fall on the "current" problem, the next delivery, or "planning" the next activity, and the expense of the less visible, but equally important "rest of the project."

Additionally, it is an opportunity to meet with the project team members, to collaboratively evaluate status, discuss needs, decide on near term actions and work-plans, predict future performance or behavior, and produce coherent variance discussions to explain differences from the project plan and a create a recovery path. Each monthly review is based on the previous review and the new review documentation should be prepared in advance and delivered at least two business days ahead of the review, monthly review minutes submitted two business days after brief

As a minimum the monthly reviews shall provide status on monitoring the quality assurance, program management, financial management, and security management applied to the task order (as appropriate to the specific nature of the SOW) and consist of: reviewing current program activities, coordinating plans for upcoming months, and discussing technical and other programmatic issues that relate to cost, schedule, performance and risk. Reviews of expenditures as well as projected burn rates across the fiscal year and POP per sub-CLIN are expected. Formal reviews will be conduct in a quarterly Program Management Review (PMR).

Semi-Informal meeting slide deck template:

- First set of slide: Two columns—progress last month and expected progress next month.
- Second set of slide: graphs showing current burn and expected burn by business system and CLIN and explanation of over or under burn.
- Second set of slide: Two columns—current issues, and plans to deal with them. Try to bring problem-solution pairs to this meeting; try not to bring problems without proposed solutions.
- Third set of slide: Milestone schedule. Use a standard format that visually shows both a baseline schedule and also the current actual schedule. This should be juxtaposed over the IPT process starting at service desk going out to deployment.
- Fourth set of slide: review SOW, as necessary

The contractor PM shall meet with the government IPT Lead weekly to discuss progress during the prior week, plans for the current week, issues, risks, and action item status.

Deliverable:

- Monthly Reviews, as appropriate briefing submitted 48 hours before brief, monthly review minutes submitted two (2) business days after brief. Reviews will be conducted prior to formal invoicing for the month, unless otherwise approved. (CDRL 03)

5.1.2.2 Program Management Review (PMR)

The contractor will provide a PMR to the Government within sixty (60) calendar days of contract award aligned with the contract Kickoff meeting and as required thereafter. The contractor shall submit all briefing materials to the COR five (5) business days before the PMR, and shall submit meeting minutes and action items within five (5) business days after each PMR meeting.

PMRs vary based on the activities that have occurred the Contractor should work with the Government prior to any PMR to determine the necessary content for each principal area of the PMR. The principal areas to be considered for the PMR are:

- Project Overview
 - include as appropriate: project knowledge management, baseline budget and time-lines, funding profiles, project and customer contact information, key personnel lists
- Project Management Effectiveness
 - include as appropriate: top-level project management effectiveness measures, project plan completeness, customer satisfaction measures, effectiveness of the program or project controls environment, answers to key management questions
- Project Financial Management
 - including: expenditure tracking, cost management, management reserve control and allocation, cost efficiency, cost to complete and estimate at completion derivation to includes forecasts based upon resource losses/backfills/increases
- Project Schedule Management
 - including: WBS integrity, schedule tracking, SDLC milestone accomplishment, project schedule milestone achievement and tracking, PERT, remaining work performance requirements
- Engineering Management
 - include as appropriate: requirements traceability and scope control, architecture mapping, design integrity measures, System Development Life Cycle (SDLC) performance status, defect tracking, hierarchical testing, product quality, engineering data management, and requirements volatility?
- Project Performance, Progress and Productivity
 - include as appropriate: overall project performance ratings and metrics, SDLC compliance, engineering and software development productivity, documentation efficiency and completeness, process and product quality, remaining work, schedule and cost efficiency indexes
- Requirements Management
 - include as appropriate: requirement counts, decomposition and expansion ratios, traceability matrix, testability, stability, feasibility, "Agenda" requirements, requirements change management, validation and verification measures
- Resource and Acquisition Management
 - include as appropriate: human capital resource management, key personnel satisfaction and retention, staffing profiles, skill mix and minimal skill thresh-holds, team training and professionalizing, personnel churn and attrition tracking, facilities status, computing, production and laboratory equipment
- Contractor Management
 - include as appropriate: contractor management and team integration, performance expectations, product and augmentation staff quality, skill match and numbers, contractor data management
- Commitments, Communication and Deliverables
 - include as appropriate: contract, interface, and documentation deliverables, customer data management, interoperability deliverables tracking, communications plan adherence
- Issues and Risks
 - include as appropriate: risk management, day-to-day issues impacting the project, safety, liabilities, issue management, risk escalation and acceptance
- Configuration Management
 - include as appropriate: change control, architecture, design, system (subsystem), software, hardware and product configuration control, documentation configuration management, review financial configuration controls

- Quality Management
 - include as appropriate: quality standards compliance, quality improvement measures, quality gate thresholds and commitment values, project and product quality attributes: usability, reliability, maintainability, availability, operability, flexibility, user adoption, and affordability
- Customer Satisfaction
 - include as appropriate: stakeholder, user and customer satisfaction measures concerning their involvement in the process, requirements completeness and satisfaction, cultural sensitivity, and product adoption measures
- Testing, Product Quality and Delivery
 - include as appropriate: delivery testing results, error rates and defects, customer and user testing, product release schedule adherence
- Transition to Operations
 - include as appropriate: user training, cost estimation for operational environment, facility planning, training and system configurations
- Follow-ons, Enhancements, and Maintenance
 - include as appropriate: long-term Issue resolution, future system enhancement potential, project follow-on contract or proposal status, project close-out, system reuse and related applications, maintenance tracking, reliability and availability

Deliverable:

- PMR, as needed, 60 days after contract award than as requested, briefing submitted 5 days before brief, PMR minutes submitted 5 days after brief (CDRL 04)

5.1.3 Program Management Plan (PMP)

The contractor shall provide support in accordance with the applicable program plans to ensure effective and efficient execution of product to the stakeholder community. The contractor shall provide support to the PM/IPT Lead in developing program plans IAW with industry standards. PMO/IPT program plans include:

- PMO Plans - Governance
 - PMP
- IPT Plans – monitor and control
 - Program Management Plan (PMP)
 - Requirements Management Plan (RMP)
 - Change Management Plan (CMP)
 - Integrated Logistics Support Plan (ILSP)
 - System Engineering Plan (SEP)
 - Business Systems Play Book (BSPB)
 - Operations Support Plan (OSP)
- Contractor Plans - execution
 - IAW with deliverables of SOW

The PMO plans are the first level plans; IPT are secondary – correlating plans will be developed by the contractor providing service support to reflect how the plans are being executed at each level. Each plan will be discussed in the remaining sections specific to their roles and requirements.

The PMP is meant to be generalized to all programs within Business Systems; each correlating document developed by the contractor shall be derived from the one above specific to the program. Ultimately the project charter and BOE should be derived from the documents at each level above it and that metrics etc. are identified and flow upwards. For example: if IPT identifies metrics in their PMP, RMP, CMP or QAP, then the Contractor Program Plan shall identify how those metrics will be gathered and provided.

The contractor shall develop and maintain throughout the contract period of performance a PMP that shall be used as a foundation for technical, resource, production and management planning. The PMP shall include the

following summary information as well as any additional information deemed relevant by the contractor or as indicated in the IPT PMP:

- Resource Rollup (RR) Use by Subtask
- Schedule and Critical Milestones
- Task Dependencies and Interrelationships
- Staffing Plan
- Key Deliverables
- Risk Management
- Subcontractor Management
- Quality Assurance(QA)/Quality Control (QC)
- Continuity of Operations Plan (COOP) Information
- Property Control Plan
- Transition Plan

Deliverable:

- Program Management Plan (PMP) within 30 days after kickoff date, updated as required (CDRL 05)

5.1.4 Integrated Logistic Support (ILSP) Plan

The contractor shall provide support for the ILS Sub-IPT that establishes the scope and core processes related to the implementation and maintenance of Business Systems Training and service desk oversight (to include training and service desk oversight for Hyperion and Oracle Business Intelligence Enterprise Edition (OBIEE)). MSC N611, through the ILS Sub-IPT, maintains responsibility for ensuring that vendor-provided Business Systems Training and triage 2/3 support adheres to ILS Sub-IPT standards and contract requirements. The IPT Integrated Logistics Plan is meant to be generalized to all programs within Business Systems, each correlating document developed by the contractor shall be derived from the one above it specific to the ILSP and correlating program. Ultimately the delivery schedule, Production SOP's, and triage 2/3 SOP's should be derived from the documents at each level above it and that metrics etc. are identified and flow upwards. For example: if IPT identifies metrics in their ILSP, then the Contractor correlating plans should identify how those metrics will be gathered and identify how they will be provided and the level of detail.

Deliverable:

- Integrated Logistics Plan (ILP), within 30 days after kickoff date, updated as required (CDRL 06)

5.1.5 Post Award Conference

The Government will hold a post award conference (PAC) in accordance with FAR Subpart 42.5, Post- Award conferences, with the Contractor, and the project management team no later than sixty (60) calendar days after contract award to achieve a clear and mutual understanding of all contract requirements and identify and resolve potential problems. The government, with the contractor, shall establish the specific date. The government shall hold the conference at the election of the government's contracting officer; the meeting shall be limited to no more than ten (10) attendees from the contractor's teams. The government shall prepare the PAC briefing package five (5) business days before the PAC and deliver the meeting minutes within five (5) business days after the PAC. At a minimum, the contractor shall address the following topics: Identify and introduce the contractor management, engineering, and other key personnel to the government representatives. Each individual shall define his or her area of responsibility and accountability. Explain the contractor's organization, plans, procedures, and schedules to execute this task order. Present the contractor's business and technical management procedures (e.g., technical POC assignments, status reporting procedures, and designated lines of authority) that shall be implemented to accomplish the requirements of the contract. Present the contractor's current staffing plan. Allocate time for the government to present its organization, plans, procedures, schedules, concerns, and to discuss other relevant topics. Allocate time for an open forum to discuss contract-related questions/concerns.

There shall be a follow-on two day conference two months (maximum) after contract award to align the contractor's responses to the deliverables and intent of this SOW with the government. The contractor will maintain communication with the government PM to ensure all aspects of the SOW are addressed and agreed to at the conference. The intent is to facilitate a teaming event to allow the contractor time to develop the appropriate plans with the government and discuss methodology for how the contractor will integrate into the government's process and requirements to satisfy the plans addressed in this document.

Deliverable:

- PAC 60 days after contract award to deliver and accept final plans defined by this SOW brief 5 days before PAC, PAC minutes 5 days after meeting (CDRL 07)
- Workshops, as needed starting after contract award up to 60 days after contract award (CDRL 08).

5.1.6 Monthly Status Reports (MSR)

The contractor shall provide a Contract Funds Status Report (CSFR) monthly, by the 10th day of each month. Some individual discrete efforts within this SOW will be identified for Earned Value (EV) metrics. The content of the reports will be negotiated during the kickoff meeting to ensure the government's monitoring and control needs are met. To fulfill and generate the required financial and schedule data for the status reports, the contractor shall use their accounting system as the source data for detailed reports that report actual costs against plan. The Contract Funds Status Report shall contain and address Spend Plan and Forecast updates, and Fund and Man-hour data.

Deliverable:

- CSFR monthly by 10th of month, updated as required (CDRL 09)
- CSFR template 5 days after PAC kickoff meeting (CDRL 10)

5.1.7 Risk Management

The contractor shall provide support by utilizing the risk parameters identified in the Risk Management Plan and assist in identifying and documenting all relevant risks to include mitigation strategies and contingencies plans for risks, when required. All risks shall be documented in the MSC mandated risk management tracking tool. The contractor shall report the total risks (including mitigation and contingency), exposure trends, and risk composite summaries to the IPT Lead. The contractor should be prepared to meet with the government on a weekly basis to review proposed risks and mitigation plans. The contractor shall assist in coordinating risk meetings to review and discuss new and existing risks with all stakeholders. The contractor shall develop a Risk Management plan corollary to the Government PMP.

Deliverable:

- RiskMP, within 30 days after kickoff date, updated as required (CDRL 11)

5.1.8 Requirements Management

The contractor shall provide support for Requirements Engineering to lead and support system requirements elicitation and problem analysis, storyboarding, use case development, requirements change management and configuration control. Types of requirements documentation provided for a baseline and/or a project include but not limited to: Software Requirement Specification (SRS), Use Cases, Interface Requirement Specification (IRS)/Interface Control Document (ICD), Requirements Traceability Matrix (RTM), wireframes, Storyboards, Business Modeling, and should be identified in the RMP. This includes requirements management for FMS to Navy Enterprise Resource Planning (Navy ERP) and associated required interfaces. The contractor shall provide support for Requirements Engineering to lead and support requirements elicitation and problem analysis, storyboarding, use case development, requirements change management and configuration control. The contractor will develop a RMP to support the IPT RPM and identify the artifacts to support the metrics listed in the IPT RMP

Deliverable:

- RMP, within 30 days after kickoff date, updated as required (CDRL 12)

5.1.9 Change Management (CM)/Communications Support

The contractor shall provide CM support for all MSC support systems developed or maintained under this effort (including activities for the Windows 2008 to 2016 refresh and nERP transition) . This support shall include all activities related to CM planning, baseline management, configuration identification, configuration audits, Functional Area Manager (FAM) approval, NMCI approval, and configuration management records and reports IAW with the PMO CMP.

CM Planning. The contractor shall provide support to various programs and projects and associated system interfaces and configuration management planning support. The contractor shall assist in the development and/or review of Engineering Change Proposals (ECPs) (CDRL 13), and generate other applicable CM Planning Documentation and Reports (CDRL 13). The contractor must be Defense Automated Document Management System (DADMS) qualified. The contractor shall establish and maintain CM records (CDRL 13). The contractor shall maintain configuration status records on various programs and/or projects. The contractor shall make these records available for periodic reviews by the Government.

Baseline Management. The contractor shall provide support to establish baseline management processes and procedures to ensure proposed changes are properly identified, prioritized, documented, coordinated, and evaluated. The contractor shall provide support to ensure that approved changes are properly documented, implemented, verified and tracked to enable incorporation in all applicable systems and/or products. **Configuration Identification** The contractor shall provide support to establish a method for the identification of software items and control its versions throughout the lifecycle. For Software Configuration Items (CI) and its versions the contractor shall provide support for identifying and documenting the functional and physical characteristics of each CI.

Configuration Audits. The contractor shall provide support configuration audits to verify the consistency of software designs as it evolves through the development process and that functionality and performance are consistent with requirements defined in the SRS. The contractor shall perform periodic audits of software and hardware configuration baselines to ensure that no unauthorized changes have been made without proper approval.

Configuration Management Records and Reports. The contractor shall provide support on recording and reporting information needed to maintain the integrity and traceability of a controlled CI and its associated documentation throughout its lifecycle. CM records and reports shall include the number of changes for a project, latest software item versions, release identifiers, the number of releases and comparison of releases.

Deliverable:

- CMP, within 30 days after kickoff date, updated as required (CDRL 13)

5.1.10 Quality Assurance

The contractor shall provide quality assurance support for process improvement of all the activities identified in the Business Systems PlayBook (BSPB). The contractor shall apply engineering and analytical disciplines to ensure that the processes and products identified in the BSPB result in quality products. This area also includes the development and adherence to both the quantitative and qualitative quality metrics identified in the BSPB. The IPT adheres to CMMI for development and services standard targeted at achieving level III, it is expected that the contractor is certified to support the government and ensure their processes also support level III compliance (at a minimum)

Deliverable:

- QAP, within 30 days after kickoff date, updated as required (CDRL 14)

5.1.11 Information System Security Design and Configuration Support

Network Research Support. The Contractor shall research Information Assurance (IA) processes, tools, devices and information protection requirements, and provide recommendations to implement, integrate, and upgrade suggested enhancements in the MSC environment.

Security Design and Configuration Technical Support. The Contractor shall identify system security requirements, design system security architectures, develop detailed security designs, assess information protection

effectiveness, and plan and execute technical upgrades and implementation projects as they apply to the MSC Network Connectivity (to include work for Windows 2008 to Windows 2016 upgrade and work to support RMF transition).

IT Security Technical Support. The Contractor shall work with the MSCHQ IA Ops team, program managers, project managers, network managers, system developers, system engineers, systems administrators, and network administrators to ensure implementation of appropriate IA controls and the applicable Security Technical Implementation Guides (STIGs) throughout the overall life-cycle of MSC network Connectivity systems (to include work for Windows 2008 to Windows 2016 upgrade and work to support RMF transition).

Connectivity Standard Operating Procedures (SOPs). The Contractor shall work with technical support teams to review existing SOPs and identify areas requiring update. The contractor shall identify new SOP needs and assist, guide, and/or prepare the necessary SOPs and/or updates to support a new or changed service offering. The contractor shall work with the IPT to develop a draft Ashore Operations Instruction and draft Streamline Process to support type 1 and type 2 changes.

Enterprise Integration. The contractor shall provide support for day-to-day operations and new projects as defined by the IPT. The contractor will work with the IPT Lead to prioritize projects based on criteria established by the IPT. The contractor shall develop a detailed project plan to track all tasks and resources required for task completion. This includes projects that require operations subject matter experts for engineering and integration of new capabilities in the datacenter environment. The contractor shall maintain and publish a schedule and other artifacts associated with projects in accordance with the BSPB. The project management support is required for all core infrastructure, database and applications type 2 changes.

Deliverable:

- SOPs review summary, within 30 days after kickoff date, SOPs updated as required (CDRL 15)

5.1.12 Information Assurance Vulnerability Management

The contractor shall provide IA support that will perform and/or apply engineering, analytical, and technical disciplines and skills to protect and defend information and information systems by ensuring its availability, integrity, authentication, confidentiality, and non-repudiation. The contractor shall implement technologies and strategies that improve the inherited security of the information infrastructure; minimize the impact of compromises or potential compromises of data, networks, and systems; or enables prevention, detection, resistance, or response to attacks. The contractor shall provide IA and Certification and Accreditation (C&A) Assessment and Authorization (A&A) support for Business System (to include but not limited to support for RMF transition and work required to transition from Windows 2008 to Windows 2016 servers). Using appropriate Defense Information Systems Agency (DISA) tools/instructions the contractor shall assist the government functional lead to ensure IA requirements are planned into Business Systems applications. The contractor shall support the government lead with performance of risk analysis, C&A Plan, DOD Information Assurance Certification and Accreditation Process (DIACAP)/DOD Risk Management Framework (RMF) packages, and development of mitigation strategies to address IA vulnerabilities in Business Systems applications. The contractor will provide the appropriate processes and metrics in accordance with the BSPB under the IA functional processes. The contractor shall provide an IA Plan to the IA Lead in accordance with the BSPB. The IA Plan shall contain and/or address the IA security architecture and IA scan results, as required.

The contractor shall comply with Military Sealift Command's Information Assurance Policy per MSC Instruction (COMSCINSTR 5239.3 series). Compliance with this directive is mandatory during the execution of design, development, and implementation and maintenance tasks within this SOW. The contractor shall comply with the Department of Defense's Information Assurance Training, Certification, and Workforce Management per DOD Directive (DOD 8570.01). The contractor shall use only certified personnel for all task(s) performed under this contract where certification is a requirement in accordance with the (DOD 8570.01) directive. It is a requirement for contractors to implement National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, "Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations" to safeguard covered defense information that is processed or stored on their internal information system or network

Deliverable:

- Information Assurance Vulnerability Management Plan, 60 days of contract award and updated as required (CDRL 16)

5.1.13 Program Office (PO) & Integrated Product Team (IPT) support

The Program Office and IPTs will require technical expert support to provide the necessary staff to meet the mission.

In order to manage, facilitate, and control IT systems, N61 has been designated as a Program Office responsible for stakeholder engagement, funding and portfolio management, business management, and the focal point for external partners and stakeholders. The availability and use of contractor support for program management, requirements solicitation, and external and internal user engagement under this contract is a critical element in supporting these PO initiatives and activities

In order to support evolving MSC business system requirements, the Program Office (PO) has designated the N611 Branch Manager as the business system IPT Lead. The IPT Lead provides monitoring and control over all aspects of the IPT activities to address MSC Functional Directorate (FD) and Program Manager (PM) requests. The Business Systems Playbook identifies all correlating phases and lifecycle that are managed within the IPT and is referred to throughout this SOW as the authoritative document for processes, procedures and metrics that the contractor shall comply. In response to these FD and PM requests, the IPT Lead has assigned programmatic and technical leads to the phases of the BSPB to ensure effective and efficient delivery of product to the users. IPT functions are assigned by the IPT lead to investigate needs, develop requirements, and guide the effort needed to launch the introduction of new MSC systems or the enhancement of existing ones to provide efficient and effective MSC solutions. The availability and use of contractor support for program and project management, engineering, logistic, and release/deployment maintenance efforts under this contract is a critical element in supporting these IPTs initiatives and activities. The Resource Allocation Plan will identify the personnel required to provide a fully functional IPT for the IT services that are identified in this SOW. The government will provide the IPT and PMO organizational chart highlighting government filled positions and the contractor will recommend the remaining compliment of persons to complete and support the IPT. The Resource Allocation Plan will be reviewed annually, with adjustments made based on demand signals for resources from the government based on the contractor's recommendation and current government billets.

Deliverable:

- Resource Allocation Plan, 30 days after contract award and updated annually (CDRL27)

5.1.14 CONTRACT PHASE-IN / PHASE-OUT

CONTRACT PHASE-IN PERIOD

Following contract award, there will be a 90 day phase-in period. The purpose of the Phase-In Period is to ensure a smooth transition of services from the predecessor contract to the current contract. No later than three (3) business days after award, the contractor shall commence review of all tasks to be performed under this contract. The contractor, with coordination through the Government, will host a kick-off meeting no later than ten (10) days after award to discuss all aspects of the contract to include technical requirements. No later than ten (10) business days after the contract kick-off meeting, the contractor shall develop, with Government input, a plan of action to ensure the smooth transition of services from the predecessor contractor to the contractor with no degradation of services. At the end of the phase in period, the contractor shall be responsible for full performance in accordance with the terms of the contract.

CONTRACT PHASE OUT PERIOD

There will be a Contract Phase-Out Period commencing ninety (90) days prior to end of contract. The purpose of the Phase-Out Period is to ensure a smooth transition of services from the predecessor contract to the new contract. Upon notification of the government, the contractor shall provide the services necessary to ensure a successful transition of services from it to the awardee under a subsequent contract for the same or similar requirement. No later than one hundred twenty (120) days period to the end of the contract, the contractor shall

develop, with input from the Government, a plan of action to facilitate the transition of services to the incoming contractor with no degradation in services

Deliverable:

Phase-In Plan, 10 Days after contractor kickoff meeting (CDRL 29)

5.2 Task 2 - IT OPERATIONS and MAINTENANCE

5.2.1 Production Support

The following contractor task is to support the Production Lead in the execution of Production responsibilities.

The contractor shall provide Production support to assist with software production and hosting tasks and provide a Production Support Plan (PSP) to the government functional Lead in accordance with the BSPB. The PSP will include analysis and reporting, new baseline integration, hosting activities, system interface, releases, Continuity of Operations Plan (COOP), performance enhancements and software tuning, Norfolk Naval Station, Va. on-site technical support and data migration. In addition, the contractor shall work with the functional lead to develop the Data Alignment Procedure (DAP), as required as well as the promotion process for Business Intelligence requirements (dashboards, reports, metrics). The contractor shall work with the functional Lead to define additional requirements that should be included in the PSP.

The contractor shall provide support to include maintenance of operational system interfaces. Unless otherwise directed by the MSC COR, the order of precedence for task execution shall be: resolution of operational issues first; providing necessary operational system maintenance second; addressing requests for system enhancements third, and new functionality fourth. The contractor shall work cooperatively with the MSC IPT to maintain existing interfaces.

Deliverable:

- PSP, within 60 days after kickoff date, updated as required (CDRL 17)

5.2.2 Infrastructure/Data Center Support

The Ashore Operations Division provides a secure, high-availability data delivery platform that supports the needs of MSC staff, stakeholders, and customers by offering technical infrastructure, project management, security compliance and FISMA support. The contractor will develop an operations support plan corollary to the one provided by the IPT. The primary goals of the Ashore Operations datacenter is to provide consistent delivery of the highest levels of system performance, availability and reliability for mission critical systems; and to safeguard MSC information and systems through sound technical and operational controls.

The contractor shall support the IPT to manage and execution support at the Charleston SPAWAR Data Center. The contractor shall support infrastructure services, including maintenance, enhancements, patch management, backup/restore, and deployment support for:

- Storage Management,
- UNIX operating systems,
- CITRIX,
- Sharepoint,
- Oracle, Sybase, and SQL databases,
- Webpage,
- applications,
- development tools
- database replication
- Interfaces in the development, training, test, user acceptance test, and production environments.

Deliverable:

- Operations Support Plan, 60 days after contract award and updated as required (CDRL 28)

5.2.3 Triage 2/3 Support

The Contractor shall respond to all MSC trouble calls related to any of the Connectivity network security components as described in this document and the MSC Network Connectivity Hardware List. The MSC Global Service Desk (MSCGSD) is considered Tier 1 and will generate helpdesk tickets. The contractor shall open, troubleshoot, report on status, and close all tickets assigned to them. The contractor provides Triage 2 and 3 support. The contractor shall work closely with the MSCGSD, IA Ops Team, MSC system administrators/network administrators, MSC users, external organizations, and service providers to ensure timely resolution of all trouble calls. The Contractor shall assist MSC local network and system administrators in observing system usage, monitoring network traffic, reviewing audit data, documenting evidence trails, and providing detailed incident analysis.

- The Contractor shall provide all required information to IA Operations so incident reports can be filed with NCDOD and closed in a timely manner.
- Contractor shall take the initiative on network-related incident response actions (i.e. act upon NCDOD NCD Messages, and begin investigations), and provide status reports to management and IA Operations.
- The Contractor shall assist in the tracking and configuration management of all MSC Connectivity network security components.
- The Contractor shall track all Network Connectivity software to ensure current and compliant licensing and the software is DoN Application Database Management System (DADMS) approved.
- The Contractor shall complete an initial and final inventory and track all Network Connectivity hardware to ensure the hardware has active maintenance support agreements.
- The Contractor shall research and analyze new Network Connectivity software and hardware requirements.
- The Contractor shall perform a quarterly assessment to ensure all MSC Network Connectivity hardware and software are IA products approved by DoD (Common Criteria).
- The Contractor shall complete an initial and final inventory and provide a detailed inventory of all Network Connectivity software and hardware components.
- The Contractor shall review all Configuration Change Requests (CCRs) for Network Defense in depth and IA compliance. The contractor shall provide all recommendations to the IPT.

Deliverable:

- Inputs into the Operations Support Plan, within 2 months of contract award and updated as required (CDRL 28)

5.2.4 Customer Support

The following contractor task is to support the Integrated Logistic Support sub-IPT Lead and Production Manager in the execution of customer support responsibilities in accordance with the BSPB. The contractor shall provide customer support to assist with triage level 2/3 tasks and provide input into the PSP, to the government functional Lead in accordance with the BSPB. The PSP will include: Triage level II and Triage level III, disposition support, 24/7 CASREP message processing/monitoring, customer support/help desk documentation and reports regarding Trouble Calls, customer support metrics and performance reporting, and plans for potential future work, as required. The contractor shall work with the functional lead to define additional requirements that should be included in the PSP.

Deliverable:

- Provide input to the Production Support Plan, 30 days of kickoff, update as required (CDRL 17)

5.2.4.1 Triage level II support

The contractor shall establish and provide a Triage II customer support capability for all MSC business systems, related processes, and interfaces. Triage II support is defined as support provided by experts in the use and function of MSC business systems, interfaces, and the processes they support. Triage II support team members will work with users to overcome usage issues inherent

to the MSC systems with a focus on applications and processes. The contractor shall assign personnel knowledgeable of Triage II customer resolution support and provide support for those issues which cannot be addressed SPAWAR Tier I or users.

The contractor shall investigate, analyze and resolve user reported issues and problems that have been forwarded by the Tier I support team and provide timely response to affected personnel, to include documentation of problem resolutions. The contract will integrate and use MSC incident reporting system and ensure all issues are entered tracked and resolved within the government directed help desk ticketing system. The contract will identify and collect metrics to assist the government with improving with problem resolution and performance improvements to include, trends by system, issue/ticket type, and resolution time. The contractor shall develop and use effective scripts and checklists for common issues allowing for quick resolutions of issues including standard operating procedures (SOPs) that can be shared with the Tier I help desk. The contractor shall support Triage III, users and/or developers in testing updates and modifications to systems to include user acceptance testing. The contractor shall support user requests including account management, password resets, user roles, application support, permissions, software issues, database issues and administrative application functions. The contractor shall develop metrics reports based on Remedy tickets resolved by contractor personnel. The contractor shall analyze data and report findings and recommendations through the monthly status deliverable, as well as, collaborate with trainers to identify support trends and identify training curriculum improvements.

5.2.4.2 Triage Level III support

The contractor shall establish and operate a Triage III customer support capability for the Business Systems (including DHAMS, Hyperion and OBIEE) and their related processes and interfaces. Triage III support is defined as technical support handling and resolving complex and unknown issues requiring detailed technical understanding of the systems. The contractor shall assign personnel knowledgeable for Triage III customer resolution support and provide support for those issues which cannot be addressed by SPAWAR Tier I or Triage II support. The contractor shall investigate, analyze, and resolve user reported issues and problems that have been forwarded by the Triage II support team and provide timely response to responsible personnel, to include documentation of problem resolutions. Resolution can include:

- System configuration changes
- Script changes
- Coding changes
- Changes to the underlying applications or databases

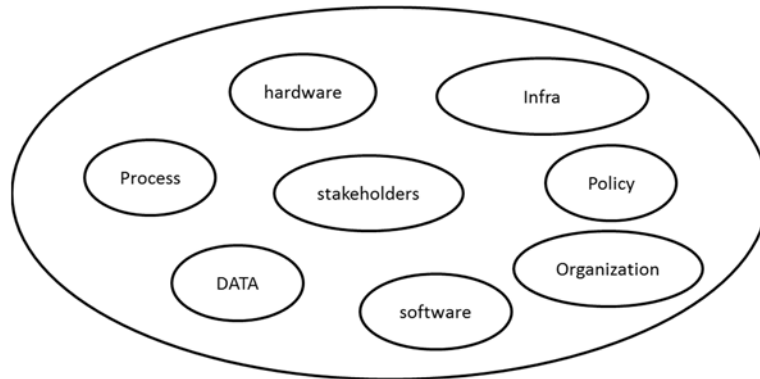
The contractor shall follow MSC change management processes for situations where new coding or system changes must be made to resolve system issues. The contractor shall track issues and reported problems via incident tickets, including time received and time resolved, by using established processes and the use of BMC Remedy software. The contractor shall prioritize tickets with VIP and urgent tickets taking precedence. The contractor shall develop and maintain reporting metrics for help desk issue tracking to include, trends by system, issue/ticket type, and resolution time. These metrics are to be reported biweekly to the IPT Lead and COR. The contractor shall work cooperatively with the other MSC N611 (including system administrators, network administrators and database administrators) to ensure and validate that changes have been migrated to and are operational in the production environment.

Deliverable:

Provide input to the Production Support Plan, within 30 days of kickoff date, updated as required (CDRL 17)

5.2.5 Systems Maintenance

MSC has adopted a systems perspective (diagram 1, below) towards providing solutions. Projects are changes to any or all elements that change the baseline configuration of the system.



The Business System Program is comprised of multiple programs. Each program is associated with a specific system or function. Each program can have many projects associated with it and each project is introduced to affect change in a system. The contractor shall provide support to the following, systems, projects, and functions. Schedule system changes shall align with the government release schedule. It is anticipated that most system changes will require software changes; to ensure timely releases only software defects, patches, and incident reports should be considered in a system maintenance change. Enhancements and projects that change the system will be addressed later in this SOW and will follow a different release schedule.

In cases where a maintenance effort for existing MSC functionality is requested by the IPT Lead, the contractor shall provide MSC with a system change assessment. These assessments shall include a description of the change request, an analysis of the manual or systemic options and impacts of each option. The analysis shall include all functional, technical, cost and schedule considerations. For any approved programmatic option, the contractor shall provide detailed functional, technical and architectural design documentation for MSC review, coordination and approval. The contractor shall develop, test and integrate approved configuration change requests and maintain configuration control of the systems engineering environment. Configuration change requests will be approved by a configuration control board and is to be completed using the Plan change request (PCR). The contractor shall evaluate the applicability of maintenance patch releases to the installed product baseline and recommend appropriate changes to the MSC configuration. The contractor shall provide release management support to facilitate migration of changes from the development and test instance to the production instance.

Deliverable:

System Maintenance Plan, within 30 days after kickoff date, updated as required (CDRL18)

5.2.6 Software Maintenance

Software Maintenance is any change to the existing baseline requirements (either system or functional), new requirements will be addressed in Task 4. Software maintenance is strictly tied to existing system and should be integrated into the Technical Management Plan. Activities that should occur so that software defects, incidents, patches, are captured (as well as enhancements and projects identified in Task 4) are captured in the help desk, Tier II, Tier III, sections. This includes but is not limited to maintenance activities for:

- Hyperion implementation
- Discoverer to OBIEE implementation
- Maintenance tasks required to support the Windows 2008 to 2016 upgrade

Deliverable:

Provide input to the Technical Management Plan, within 30 of kickoff date, updated as required (CDRL 20)

5.2.7 Training

The contractor shall provide all system training material for all Business Systems to include MSC E-Learning Training program. The contractor shall make available technical SMEs that have or can quickly obtain relevant MSC experience to assist in the training curriculum process. The contractor's training technical support shall include reviewing the training curriculum, facilitating courseware updates by providing remote access to a live system and providing updated user manuals, and participating in training system plan reviews or updates. The

contractor shall provide training support for training document reviews and updates. The contractor shall present training sessions, using PowerPoint presentations and trainee guides, in preparation for each event. The contractor shall update training materials with each release to reflect additional capabilities of that release and shall organize them to minimize training time for users familiar with previous iterations of the system.

The contractor shall provide curriculum development to include software training manuals, training plans, and training schedules.

The contractor shall provide classroom and on-the-job training. Relevant users will be trained to operate and maintain the system, as necessary, in accordance with the implementation plan.

The contractor will provide a configurable venue, located within the vicinity of local offices, for training that supports approx. 20 students, provides virtual capabilities, access to business systems at NEDC or development environments, limited NMCI access, break out area, white-boarding, and projection. The room will be dedicated and available for the IPT use and managed by the Logistic sub IPT Lead.

Deliverables:

Training Plan, by release and updated as required to include Training Plans and Training Schedules (CDRL 19)

5.2.8 Collaboration Tool – Info Only

The Government shall provide access to their collaboration – iNavy portal, where both government and contractors can collaborate on documents, project deliverables, and remote troubleshooting with ships, as required. Only authorized users with proper identification shall have access the tool. All deliverables shall be formally submitted to the government using the government approved repository. Government and support contractors shall have access to the collaboration tool where appropriate non-disclosure agreements (NDAs) and Proprietary Data Protection Agreements (PDPAs) with the contractor are on file.

5.3 Task 3 - Engineering Support

5.3.1 Engineering Initiative and Activities Support - Info Only

In order to support evolving MSC system requirements, N611 engages in initiatives and ongoing activities to address MSC Functional Directorate (FD) and Program Manager (PM) requests. In response to these FD and PM requests, N611 assigns an appropriate IPT SME to investigate needs, develop requirements and guide the effort needed to launch the introduction of new MSC systems or the enhancement of existing ones to provide efficient and effective MSC solutions. The availability and use of contractor support for systems enhancements and maintenance efforts under this contract is a critical element in supporting these N611 initiatives and activities. The Business System Playbook (BSPB) embodies all the documents SOW identified and provide by the IPT in section 5.1.3 and is meant to be generalized to all systems within Business Systems, each correlating document developed by the contractor shall be derived from the one above it specific to the BSPB. Ultimately the Software Development Plan (SDP), Baseline Descriptors, TEMP, BOE and release plan should be derived from the documents at each level above it and metrics etc are identified and flow upwards. For example: if IPT identifies metrics in their BSPB, then the Contractor correlating Plan should identify the artifacts necessary to manage the process, how those metrics will be gathered, the processes, and SOPs identifying how they will be provided at the most detail.

5.3.2 Systems Engineering – Info Only

MSC IPT Business System PlayBook (BSPB) integrates the EPM methodology and the SEP/SEMP to meet the unique needs of the business system program integrating these activities of system engineering and integration within the O&M phase of the acquisition lifecycle. This SOW references the Military Sealift Commands Business Systems System Playbook.

The Business System “as is” is bereft of many of the controlling and decision making documents necessary for effective sustainment and maintenance. The BSPB was developed to bring rigor to the program and is used in conjunction with the plans identified and provided by the IPT. The BSPB is maintained by the IPT and is a

governing document that outlines how the contractor will support, engineering, testing, and enhancements activities within the program lifecycle of the EPM (modified). The contractor shall provide detailed Plans to address how the contractor will execute the work within this SOW, in accordance with each of the 4 Levels reflected in the BSPB. The specific Plans required to support the BSPB are identified within the sections below. The BSPB is abstracted to four (4) levels of granularity:

- Level I: Business System Functional Org Chart – government responsibility
- Level II: System Software Lifecycle Process– government responsibility
- Level III: System Software Phased Processes – government responsibility
- Level IV: Detailed Functional Processes (Technical, Sustainment, and Maintenance) – vendor responsibility

The contractor shall engage the appropriate government functional leads to ensure that all requirements are addressed in the documents to include SBSPB processes and metrics. Plan(s) shall be resubmitted for review and government approval when periodic updates are performed subsequent to process improvement reviews. The BSPB is an evolving document; revisions to the BSPB are expected as the dynamics of the stakeholders interactions occur. The contractor shall update and submit the changes within ten (10) business days of identifying the changes. The contractor supporting BSPB plans shall include how the contractor will prepare, support, participate, and document all BSPB events that occur during the SEPb lifecycle and provide the reports for each event within ten (10) business days after the completion of the events.

Each pass through the BSPB will generate a unique set of products (deliverables) minimally identified in the associated BSPB Plan. The appropriate type and quantity of the product will be documented in the tailored baseline checklist (identified in the BSPB) depending on the baseline that is being considered.

5.3.3 Technical Management

The contractor shall provide a technical manager dedicated to providing technical direction to the supporting contractors. The contractor shall assign a single point of contact, who shall work closely with the IPT Technical Lead. The contractor's technical manager is responsible for execution of the tasks identified in this section. The contractor shall provide support whose sole responsibilities are those of the contractor technical manager. The technical manager shall attend process reviews, technical reviews and other meetings of interest and importance to this effort to manage the engineering and technical effort in support of the government IPT Technical Lead. The contractor technical manager shall apply the technical disciplines required to support planning, organizing, and leading team efforts in managing the effort such that the result places capable and supportable systems in the hands of the warfighter when and where needed, and at an affordable price. The technical manager should provide support to the efforts described in the PWS, and includes but is not limited to the following efforts:

- Hyperion implementation
- Discoverer to OBIEE implementation
- MILSTRIP to DLMS implementation (to comply with DOD Directive 8190.01E)
- Support Navy ERP planning and requirements assessment.
- A&A tasks for RMF
- Engineering and A&A tasks required for the Windows 2008 to 2016 upgrade

The contractor Technical Manager shall provide a Technical Plan that addresses and/or contains contractor baseline estimates, support studies, workshop plans and agendas, Application Integration Plan, Risk tracking, technical performance metrics, baseline status reporting, Capability Development Document (CDD), Concept of Operations (CONOP), and Capability Production Document (CPD), as required. The contractor shall work with the IPT Technical Lead to define additional requirements that should be included in the Technical Plan.

The contractor shall provide administrative support for reviews, Change Control Boards (CCBs), Technical Review Boards (TRBs), briefings, and meetings by preparing draft agendas, meeting minutes, and action item lists. The contractor shall document the activities and outcome of all tasks under this section by generating technical reports as appropriate.

Deliverable:

Technical Management Plan, within 30 of kickoff date, updated as required (CDRL 20)

5.3.5 System Design Alternative (SDA) studies

Upon a modification request from the Government, the contractor shall provide support for the application of scientific and analytical disciplines to conduct studies, experiment, and workshops directed toward improving the system. This task represents a grass root effort for integration of complex systems of differing but related functional disciplines that must work together by gauging their efficiency in either their integration or segregation as an enterprise with the intent of deciding which applications are providing a contribution to the system. The scope of this requirement includes but not limited to outreach, innovation, education, studies, business case analysis, Mariner Afloat Support Center (MASC), and decision analysis reports.

Deliverable:

Studies as appropriate upon request (CDRL 30)

5.3.6 Release/Deployment

The contractor shall support the cross-technology domain release management, process design, optimization and policy. Release management oversees the process by which the production environment is updated, upgraded and maintained. The release manager is the major liaison between application development and production for release management control. The contractor shall develop, audit, monitor and enforce established release management processes and policies in support of cross-domain configuration integration, testing, completeness and consistency. The contractor shall provide support to domain-specific release management resources in a timely and efficient manner, coordinate release program activities and function as a subject matter expert in release management, ensuring consistency in policies and operational procedures, release integration testing, and production validation. The contractor shall provide the appropriate processes and metrics in accordance with the BSPB. The contractor shall provide a Release Plan (RP) to the government Technical Lead for software release in accordance with the BSPB. The Release Plan shall contain and/or address release management checklists, packaged baseline and delivery, and baseline delivery schedule, as required.

The contractor shall apply engineering, analytical, and technical disciplines and skills to establish and maintain long-term engineering, operation, and maintenance support for Business System capabilities. This includes the installation for shipboard work and shore work, and delivery of systems, including the development of installation and integration plans, drawings, technical change documentation and notices and procedures in support of these efforts. Included in this task is site/platform support liaison and help desk support as required. This includes (but is not limited to) support for the following afloat business systems: ShipCLIP and DHAMS. It also includes, but is not limited to, release and deployment for the following:

- Hyperion implementation
- Discoverer to OBIEE implementation
- MILSTRIP to DLMS implementation (to comply with DOD Directive 8190.01E)

The contractor will provide the appropriate processes and metrics in accordance with the SEP. The contractor shall provide an Install Support Plan (ISP) to the government integration lead for software release in compliance with the BSPB. The Install Support Plan shall contain and/or address the install schedule, Software Delivery Document, SOVTs, and data conversion plan, as required.

Deliverable:

Release Plan within 30 days of contract kickoff meeting, updated as required (CDRL 21)

Install Support Plan within 30 days of contract kickoff meeting, updated as required (CDRL 22)

5.3.6.1 Operational Shipboard

The Contractor shall visit MSC ships on an as needed basis to provide the following:

- Support SAMM systems aboard vessels as directed by the Technical Point of Contact (TPOC).

- Onboard assistance in accomplishing input of completed equipment maintenance actions into the Engineering Maintenance Management Systems.
- Onboard assistance in accomplishing the input of all data that identifies billet to PM code requirements.
- Onboard troubleshooting and training.
- Assistance and troubleshooting in the use of all data collectors.
- Onboard training to the logistics, engineering department on the differences of the system operational status changes.
- Technical assistance for software installation or troubleshooting
- Onboard investigative work to resolve help calls and feedback requests.

5.3.6.2: Afloat Application/System Support.

Maintenance Engineering Services. Provide services for the support of Government's maintenance management information systems, data, and hardware in both the shipboard and shoreside environment.

Afloat application/system Data Entry, installation and sustainment services. Provide services for afloat application/system data entry and installation. Afloat application/system installation may require the installation of system hardware, software and data on shipboard and remote Local Area Networks (LAN), and training to operate and manage the system and hardware. System maintenance may require periodic or emergent ship visits to remedy software, hardware or data problems and to provide for ship's crew training. System support maintenance may also require the maintenance of the software and data.

System Data Maintenance and Conversion.

- Data Collection. Collect data for the afloat application/system. The Government will provide the contractor specific technical direction for data and hardware requirements for each system at the task order level based on specific ship requirements at the date and time data collection is to occur.

System Installation.

- Shipboard System Installation. Submit the system to the Government for review and approval. Upon approval by the Government, the Contractor will install the system on the ship's LAN. The following are typical of the specific requirements, which the Contractor may be required to perform:
 - Troubleshoot installed computer equipment, operating systems, and software to ensure that the afloat application/system installation is complete.
 - After completing the physical installation of the software and data collection hardware, provide training to the Chief Engineer and designated crewmembers on the software, data collection hardware, and manuals. Maintain documentation on the completion and level of training provided to all MSC personnel.
 - Provide a working afloat application/system a listing of the equipment (sorted by system and description), guides, a VTAG, afloat application/system manuals, required hardware, and a printout in electronic format of the current maintenance schedule.
- Remote Shoreside System Installation. ...After completing the physical installation of the software and hardware, the Contractor will provide system training to MSC Personnel .

System Sustainment.

- The Contractor will manage and administer installed versions of the shipboard maintenance management information systems.
- Shipboard Sustainment. Visit ships for the purpose of systems data review, troubleshooting, and training. For each visit, the following are typical of the specific requirements which may be performed:
 - Provide support for troubleshooting of all hardware and software integration issues.
 - Update to software and databases
 - Provide and document training to personnel in the use of systems software.

5.3.7 Advanced Planning Support

The contractor shall provide Advanced Planning support to include technical and coordination services for the scheduling, implementation, and training of Business System and software. Services shall include:

- Pre-implementation scheduling and coordination with other organizations
- Site surveys, grooms, site implementation
- Implementation briefings and Trip Reports
- Maintaining a repository of user training and documentation to include Software User Manuals (SUMs), Software Training manuals, and Training Plans
- Validation of system functionality, business processes, and user procedures

Deliverable:

Provide input to the Program Management Plan, as required (CDRL 05)

5.3.8 Testing Support – Info Only

The Business System government technical lead is responsible for the testing, implementation, and integration of system solutions. This technical lead contributes to all aspects of the BSPB including design, needs analysis, design review, testing, implementation, validation, and install. The government technical lead provides recommendations about advanced planning and use of resources to provide timely delivery of software to all platforms as well as engineering support to platform during ship/shore installs. Providing these services in an effective and efficient manner will ensure maximum access to and implementation of technology services and resources. The IPT lead is responsible for ensuring contractor compliance and execution of the BSPB.

5.3.9 Documentation

The contractor shall provide support to maintain and upgrade System Administrator Manual (SAM) and Software User Manual (SUM) in accordance with the requirements to develop technical manuals. The contractor shall leverage the content in the SAM and SUM to serve as the basis for the embedded help system. The contractor shall create system documentation in Microsoft Word document (DOC) format. This includes documentation as required to support the following:

- Hyperion implementation
- Discoverer to OBIEE implementation
- MILSTRIP to DLMS implementation (to comply with DOD Directive 8190.01E)

Deliverables:

Provide input to the Software Development Plan (SDP) which includes the SAM and SUM, within 30 days of contract kickoff, updated as required (CDRL 24)

5.3.10 New Capability Development

Improvements to the systems are defined throughout the program fiscal year and must be integrated into the current systems. The government requires the ability to introduce projects that have been approved by the CCB to be developed under this PWS. When a new capability is identified the government will provide a project package (that includes all CCB artifacts as defined by the BSPB) that provides sufficient detail for the vendor to develop a proposal for completion. The project package will be provided as a modification to the PWS for development by the vendor. Upon a modification request, the vendor shall provide a proposal for development of the package following the corollary plans and methodology identified in this PWS to support the development of new capabilities to MSC systems. This task provides for the inclusion of system enhancements that have gone through planning and design and are approved by the PM CCB. It is anticipated that the artifacts from the CCB serve the basis for the contract modification that will address the pertinent sections of this PWS. The government will make every effort to plan project modifications to align with fiscal execution of funds to provide the greatest chance for

project completion, however, an ad-hoc request may occur due to operational demand that may preclude execution of a project at the beginning of the fiscal year. The scope of this requirement includes but is not limited to new functions and capabilities that may be introduced at an ad-hoc basis or at the beginning of each fiscal year.

Deliverable:

Development Plan and Cost (CDRL 31)

5.4 Task 4 - Software Development

5.4.1 Requirements Analysis, Design, Coding, and Testing

The contractor shall provide support to sustain efforts necessary for evolving Business System requirements. The contractor shall support any unspecified or future Software Development and Enhancement initiatives set forth by N611 that are necessary to fulfill any MSC requirements. The contractor shall apply engineering, security, and scientific disciplines to perform technical analysis enhancements, selection of hardware and computer software, modification to existing hardware and software for the Business System. This also consists of software engineering efforts and programming support required to technically support software maintenance in systems, sub-systems, and components utilizing computers, electronics, and software. Planning, designing, coding, testing, integrating, supporting, and delivering algorithms, software (source code and executable), computer programs are the inherent activities of this functional area. Commercial Off-The-Shelf (COTS) solutions and product modifications (e.g., software tools, licensing, and associated hardware) which are incidental to the overall support service efforts are considered within the scope of this functional area. This includes but is not limited to the following efforts:

- Hyperion implementation
- Discoverer to OBIEE implementation
- MILSTRIP to DLMS implementation (to comply with DOD Directive 8190.01E)

The contractor shall provide a Software Development Plan (SDP) to the government lead for software engineering and coding in compliance with the BSPB. The SDP shall contain and/or address Software Requirements Specifications (SRS), Software Functional Requirement (SFR), System Operational Verification Tests (SOVTs), Software Delivery Document (SWDD), Software Design Document (SDD), and Development Integrated Test Plan (DITP), as required. The Contractor shall define a software development plan (SDP) appropriate for the computer software projects to be performed under this contract. For all software developed and maintained under this contract, the Contractor shall provide deliverables in accordance with CMMI Level 3, IEEE/EIA std 12207.0 12207.2008 (series). In accordance with the frame work defined in IEEE/EIA Std 12207.2008 (series), the SDP shall define the processes, the activities, and the techniques and tools to be used to perform the tasks. Because the IEEE/EIA Std. 12207.2008 does not prescribe how to accomplish the task, the Contractor must provide this detailed information so MSC can assess whether the Contractor's approach is viable. The Contractor shall follow this SDP for all computer software to be developed or maintained under this contract. The SDP may contain the information defined by IEE/EIA std. 12207.2008, and the Plans or Procedures in Table 1 of IEEE/EIA Std. 12207.2008. In all cases, the level of detail shall be sufficient to define all software development processes, activities, and tasks to be conducted.

Deliverable:

Test Evaluation Management Plan, within 30 days of contract kickoff meeting, updated as required (CDRL 23)

Software Development Plan, within 30 days of contract award, updated as required (CDRL 24)

5.4.2 Software Expertise – Info Only

The Contractor shall maintain compatibility and expertise with the following software tools, the appropriate tools within the software product and versions are system specific and included in the fact sheets

Microsoft
Embarcadero
Borland Delphi,

Java
 APACHE Tomcat,
 JBoss EJB,
 Citrix
 Crystal Reports,
 Power Tools,
 ORACLE products
 SYBASE products
 Microsoft
 ERWIN,
 Microsoft .NET
 SQL
 SolarWinds
 Captivate
 SharePoint
 Windows/UNIX/Linux OS
 ESTA
 TOAD
 ACL Analytics
 InstallShield
 Threat Management Gateway (TMG)

5.4.3 Life Cycle Management Support (LCM)

The Contractor shall provide Life Cycle Management (LCM) support during operational life of systems developed or maintained under this contract. The SDP shall define the Contractor's proposed life cycle model and the processes used as a part of that model. In this context, the term "life cycle model" is as defined in IEEE/EIA std.12207.8000. The SDP shall describe the overall life cycle and shall include primary, supporting and organizational processes based on the work content of this contract. The Contractor shall provide LCM end-of-life system support during retirement of systems developed or maintained under this contract. The SDP may also contain the following activities in addition to those defined in IEEE/EIA std 12207.8000 (as amended): Software modeling support. MSC currently uses Unified Modeling Language (UML) to document Engineering and Logistics Government web applications. Software Project Planning/Requirements Management Support which includes but is not limited to:

- Requirements gathering, analysis and documentation
- Create a Software Requirement Specification
- Create draft and iterated revision of Concept of Operations (CONOPS) documentation
 - Provide a project plan of action and milestones (POA&M) where the work break down structure is in compliance with the current MSC's adapted version of Microsoft Solutions Framework (as amended) which includes the following phases of development:
- Envisioning
- Planning
- Developing/Configuring
- Stabilizing/Testing
- Deploying
- Software Quality Assurance which may include but is not limited to:
 - Development testing and reporting
 - System Unit Testing and reporting
 - System Integration Testing and reporting
 - User Beta Testing and reporting
 - System User Acceptance Testing and reporting
 - Track and provide software code error remediation where required
 - Facilitate system installation which may include but is not limited to:

- Quality Assurance system installation instructions and scripts
 - Quality Assurance system test instructions and scripts
- Shoreside system installation instructions and scripts
- Shipboard system installation instructions and scripts
- Develop analysis of alternatives, business case analysis or other required systems analysis including associated documentation
- Provide all necessary equipment, hardware, software, training, and training documentation needed to perform initial training of MSC operations staff.

Deliverable:

Operations Support Plan, within 30 days of contract award, updated as required (CDRL 28)

5.4.4 User Manuals

The contractor shall provide support to develop System Administrator Manual (SAM) and Software User Manual (SUM) in accordance with the requirements to develop technical manuals. The contractor shall leverage the content in the SAM and SUM to serve as the basis for the embedded help system. The contractor shall create system documentation in Microsoft Word document (DOC) format. This includes system documentation as required for:

- Hyperion implementation
- Discoverer to OBIEE implementation
- MILSTRIP to DLMS implementation (to comply with DOD Directive 8190.01E)

Deliverables:

Provide input to the Software Development Plan (SDP) which includes the SAM and SUM, within 30 days of contract kickoff meeting, updated as required (CDRL 24)

5.4.5 Database Development and Management

The contractor will support the government data warehouse team lead in the development and enhancements of the data warehouse user interface, draft user requirements for government approval, draft new standards and procedures related to end user and internal interface development for government approval.

The contractor will work with Data Architect on technical issues and system architecture definition and draft high-level work plans. Upon approval of high-level work plans by the Government, the contractor will convert to detailed assignments for the team members and distribute accordingly.

The contractor will report status of assignments and completion of work to the Government lead. The contractor shall provide subject matter expertise in development, maintenance and support of an enterprise data warehouse system and corresponding data marts. Expertise requires troubleshooting and tuning existing data warehouse applications, conducting research into new data warehouse applications and determine viability for adoption.

The contractor shall provide subject matter expertise in data warehouse programming to include performing data warehouse design, construction, codes, document scripts, and store procedures. Expertise in designing and implementing data strategy methods, developing appropriate programs and systems documentation, management of metadata repository, preparing and implementing data verification and testing methods for data warehouse, and creating index and viewing scripts.

The contractor shall provide subject matter expertise in development of extract/transform/load solutions.

The contractor shall conduct data mapping, design, development and implementation of extract/transform/load processes using custom ETL or ETL tools.

The contractor shall upgrade software, document software, research new software versions, back-up and recovery, ETL repository administration and promote software packages to proper environment, troubleshooting, and technical support. The contractor shall provide subject matter expertise in coordinating data administration technical function for both data warehouse development and maintenance. Support includes planning and overseeing technical transitions between development, testing, and production phases of the workplace; facilitating change control, problem management, and communication among data architects, programmers, analysts, and engineers. Expertise in establishing and enforcing processes to ensure consistent, well managed, and

well integrated data warehouse infrastructure; and expands and improves data warehouse to include data from all functions of the organization using data manipulation, transformation, and cleansing tools. The contractor shall provide subject matter expertise in data designs, data architecture, metadata and repository creation of traditional RDBMS and Big Data platforms. The contractor shall define, design, and build dimensional databases; develop data warehousing blueprints, evaluate hardware and software platforms, and integrate systems; evaluate reusability of current data for additional analysis; conduct data cleaning to rid system of old, unused or duplicate data; review object and data models and the metadata repository to structure the data. The contractor shall provide subject matter expertise to direct, review, design, implement and maintain complex databases with respect to JCL, access methods, access time, device allocation, validation checks, organization, protection and security, documentation, and statistical methods. The contractor shall identify data sources, construct data decomposition diagrams, provide data flow diagrams and documents; write codes for database access, modification and construction to include stored procedures. The contractor shall maintain database dictionaries, overall monitoring of standards and procedures, and integrate of systems through database design.

Deliverable:

- Data Management Plan, within 60 days of contract award, updated as required (CDRL 25)

5.4.6 Business Intelligence and Analytics

The contractor shall provide support with dashboard, metric, and report enhancements (to include Discoverer to OBIEE implementation). The contractor will work with the IPT Tech Lead and Production Lead to develop processes for building and promoting BI products. Expertise in establishing standards, evaluating existing subject areas stored in data warehouse, determining business information needs and identifying system requirements analyze business intelligence data and provide reports. Additionally, the contractor will provide expertise on capitalizing on new data technologies, such as cloud computing, Big Data, Mass processing, Virtualized Data to optimize MSC current data warehouse.

Deliverable:

- Business Intelligence Plan within 30 days of kickoff meeting, updated as required (CDRL 26)

6. Contract Type

The Government will issue one hybrid task order, consisting of Firm-Fixed Price and Cost Plus Fixed Fee line item. All work will be in accordance with the program and technical plans identified in this SOW. At contract award the contractor will provide their corresponding plans with metrics to the government. The government and contractor will have two months after award of contract to finalize the plans and to finalize the QASP for the length of the contract (base plus option years)

7. Place of Performance

The contractor office will be located within 30 miles of MSC, Norfolk Naval Base. Program Management and PMO/IPT support and Key Personnel will be performed at the contractor's local office, the site should be located to allow for day to day interactions with the government that does not put undue travel or timing restrictions on the government. PMO/IPT roles must comply with government core duty hours and telework requirements. If the contractor has alternate work locations to execute the SOW (excluding PMO/IPT support) the contractor shall keep the COR and Contracting Officer informed about place of performance by its employees. If work required by this contract is accomplished outside the Contractor's local office, the government will not be responsible for costs incurred by the contractor to make personnel available for meetings at the local office, unless requested by the government. Due to limited work and meeting space at the government site the contractor will maintain sufficient space for workshops and meetings with the government IPT. The contractors shall separate the contractor IPT members from the rest of the contractor community and ensure that there is sufficient space for meeting with the government while at the contractor facility. Work shall be performed mainly at the contractor's facility(ies) with the understanding that meetings with the Government and resolution of issues require face-to-face interaction at

the Government or at the Contractor local site. Travel may be required to other Navy, DOD installations, or MSC enterprises which currently consist of the following locations:

Washington D.C.
San Diego, CA
Naples, Italy
Guam, USA
Pusan, Korea
Pearl Harbor, HI
Singapore
Bahrain
Yokohoma, Japan

Note: The preponderance of the tasking in this Statement of Work shall be completed in the Norfolk, VA area.

8. Period of Performance

Requirement is for one (1) base year and four (4) one-year options and is subject to the availability of Government funds.

9. Deliverables/Delivery Schedule

Delivered plans will identify requisite artifacts associated with the activities correlating with the plan. (e.g. an artifact for the SDP would be a SSS) The artifacts along with the deliverables will be reviewed by the government when submitted and validate during at the post award conference.

Originals of all correspondence requiring signatures, such as copies of invoices, monthly status report, etc. shall be delivered to the Contracting Officer's Representative (COR) at the following address:

MSC HQ
471 E. C Street
Building SP-64
Attn: N611 Vickie Jackson
Norfolk, VA 23511-2419

As directed deliverables may be electronically submitted to: (To be provided at the time of award).

CLIN # and Title	Contract Type
0X00 - PM Support	FFP
0X01 - IT Ops & Maint	FFP
0X02 - Integration Services	CPFF
0X03 - Software Development	CPFF

Written Deliverables: The contractor shall review, approve, and sign all deliverable documents before delivery to the government. The content, artifacts, and format of all deliverables are to be validated during the post

conference workshops and should be representative of industry best practice for documenting product and service.

CDRL#	Deliverable Title	Date Due	CLIN #
01	Earned Value Management Plan	30 days after kickoff	0X00
02	Contractor Work Breakdown Structure	As required in the base contract	0X00
03	Monthly reviews	Monthly, briefing submitted 48 hours before brief, IBR minutes submitted 48 hours after brief	0X00
04	Program Manager Review	60 days after contract award and as required thereafter, briefing submitted 5 days before brief, PMR minutes submitted 5 days after brief	0X00
05	Program Management Plan	within 30 days after kickoff date	0X00
06	Integrated Logistics Plan	within 30 days after kickoff date, updated bi-annually	0X02
07	Post Award Conference	60 days after contract award to deliver and accept final plans defined by this SOW brief 5 days before kickoff meeting, PAC kickoff minutes 5 days after meeting	0X00
08	Post conference workshops	60 days after award	0X00
09	Contract Funds Status Report	monthly by 10 th of month	0X00
10	Contract funds status report template	template 5 days after kickoff meeting	0X00
11	Risk Management Plan	within 30 days after kickoff date, updated as required	0X02
12	Requirement Management Plan	within 30 days after kickoff date, updated as required	0X02
13	Configuration/Change Management Plan	within 30 days after kickoff date, updated as required	0X02
14	Quality Assurance Plan	within 30 days after kickoff date, updated as required	0X02
15	Information System Security Design and Configuration Support Standard Operating Procedures	SOP Summary within 30 days after kickoff date, SOPs updated as required.	0X02
16	Information Assurance Management Plan	within 60 days after kickoff date, updated as required	0X02
17	Production Support Plan	within 60 days after kickoff date, updated as required	0X01
18	System Maintenance Plan	within 30 days after kickoff date, updated as required	0X01
19	Training Plan	within 30 days after kickoff date, updated as required, by release and updated as required to include Training Plans and Training Schedules	0X01
20	Technical Management Plan	within 30 days after kickoff date, updated as required	0X02
21	Release Plan	within 30 days after kickoff date, updated as required	0X02
22	Install Support Plan	within 30 days after kickoff date, updated as required	0X02

23	Test Evaluation Management Plan	within 30 days after kickoff date, updated as required	0X03
24	Software Development Plan	within 30 days after kickoff date, updated as required	0X03
25	Data Management Plan	within 60 days of contract award, updated as required	0X03
26	Business Intelligence Plan	within 30 days after kickoff date, updated as required	0X03
27	Resource Allocation Plan	30 days after contract award updated annually	0X01
28	Operations Support Plan	within 60 days after contract award date, updated as required	0X01
29	Phase-In Plan	within 10 days after kick-off	0X00
30	Studies	As required	TBD
31	Development Plan and Cost	As required	TBD

10. Security

10.1 Physical/ Personnel Security

This effort may require limited access to U.S. Government classified information in regards to system security vulnerabilities, classified taskers and ship locations for critical personnel on a Need to Know basis.

The contractor shall pursue and obtain U.S. Government SECRET security clearance for all personnel as required by the tasks of this contract to effectively perform their duties supporting fleet and Headquarter operations. Critical positions are designated, at a minimum, as: Program Manager, Integrated Product Team (IPT) members, Afloat/Ashore Operations and Infrastructure, Installers, Developers/Engineers, Advance Planner, Help Desk Tier 1/2/3, Analysts and Security personnel.

10.2 Non-Disclosure Requirements

The contractor will be required to work with business sensitive information in the performance of this PWS. No sensitive or proprietary information of, or in the possession of the MSC or any of its operating units, will be disclosed without the written consent of the Contracting Officer. A non-disclosure agreement concerning information gained or used during performing under this order must be initiated prior to the start of the order. The agreement must be signed by any personnel who have access to sensitive business information and their employer.

10.3 Common Access Card (CAC) issuance

Contract positions that do not require a security clearance, but do require a Common Access Card (CAC) for logical or physical access to either a DoD network or facility:

In accordance with DoD Instruction 1000.13 "Identification (ID) Cards for Members of the Uniformed Services, Their Dependents, and Other Eligible Individuals" a background investigation is required for those individuals eligible for a CAC. A background investigation shall be initiated by the sponsoring organization before a CAC can be issued. Initial issuance of a CAC requires, at a minimum, the completion of the Federal Bureau of Investigation (FBI) fingerprint check with favorable results and the submission of a National Agency Check with Inquiries (NACI) (or investigation approved in Federal Investigative Standards). Pending final

Office of Personnel Management (OPM) approval a CAC may be issued on an interim basis based on a favorable FBI fingerprint check and submission of a personnel security investigation to OPM.

Per the Office of Personnel Management Memorandum "Final Credentialing Standards for Issuing Personal Identity Verification Cards under HSPD-12" of July 31, 2008:

"If an individual who otherwise meets these standards is found: 1) unsuitable for the competitive Civil service under 5 CFR part 731. 2) ineligible for access to classified information under the E.O. 12968 or 3) disqualified from appointment to the excepted service or from working on a contract, the unfavorable decision is a sufficient basis for non-issuance or revocation of a PIV card."

If at any time either MSC or OPM in their sole discretion determines that a Contractor's employee is no longer eligible for a CAC, the employee's access will be revoked. In the event access is revoked, the Contractor will be notified by the COR and briefed. It shall be the Contractor's sole responsibility to retain a suitable substitute.

The Contractor shall comply with DoD Instructions 5200.1-R and 5200.2-R, SECNAV Instructions 5510.30 and 5510.36, and COMSC Instruction 5510.8H, COMSC INFORMATION AND PERSONNEL SECURITY REGULATION.

11. Government Furnished Equipment(GFE)/Government Furnished Information (GFI)

The Government will provide the Contractor access to the following information: relevant Government organizations, information and documentation, manuals, texts, briefs and associated materials, as required and available. The Contracting Officer's Representative (COR) will provide coordination assistance to assist the Contractor in accessing the required information. Any sensitive information must be stored at MSCHQ and/or other MSC Government sites. The Government will provide remote access to MSC stage, production and training environments. The Government will provide access to the MSC IS Portal collaboration site and provide two licenses of the Adobe eLearning Suite for training development. Contractor's development sites must be compatible with the government's environment, follow the protocols established by the CMP and provide satisfy any security requirements needed to maintain government software at their site. The contractor will detail their safeguards and compliance for software and data residing in their environment in the configuration management plan.

12. Packaging, Packing, and Shipping Instructions

Preservation, packaging and packing shall conform to the Uniform Freight Classification Rules and in such manner as to ensure acceptance by common or other carrier for safe transportation, at the lowest rate, to the point of delivery.

13. Inspection and Acceptance Criteria

Refer to section 15.

14. Other Pertinent Information or Special Considerations

References for this SOW:

DoD 5220.22-M	DoD Manual – National Industrial Security Program Operating Manual (NISPOM)
DoDD 5220.22	DoD Directive – National Industrial Security Program
DoD 5200.2-R	DoD Regulation – Personnel Security Program
DoDD 8500.1	DoD Directive – Information Assurance DOD Instruction – Cybersecurity
DoDI 8500.2	DoD Instruction – Information Assurance (IA) Implementation
DoDI 8510.01	DOD Instruction - DoD Information Assurance Certification and Accreditation Process (DIACAP) DOD Instruction – Risk Management Framework (RMF) for DOD Information Technology (IT)
SECNAVINST 5239.3B	DoN Information Assurance Policy, 17 Jun 09
SECNAVINST 5510.30	DoN Regulation – Personnel Security Program
NIST SP 800-Series	National Institute of Standards and Technology Special Publications 800 Series – Computer Security Policies, Procedures, and Guidelines
FAR 52.246-1	Contractor Inspection Requirements
SECNAVINST 5239.3B	DoN Information Assurance Policy, 17 Jun 09
SECNAVINST 5510.30	DoN Regulation – Personnel Security Program
CMMI-DEV, V1.3	Capability Maturity Model Integrated (CMMI®) for Development
ITSM Process Architecture Practice, 10 April 2015	Navy Process Reference Model (NPRM), Version 3.0, Navy
INCOSE SEG ver3.2	INCOSE. Systems Engineering Handbook - A Guide for System Life Cycle Processes and Activities
CMMI	Capability Maturity Model Integrated (CMMI®) for Services
DTM 11-009	Directive Type Memorandum (DTM) 11-009, Acquisition Policy for Defense Business System (DBS). Under Secretary of Defense - Acquisition, Technology, and Logistics. Washington, DC: Department of Defense, 2011.
ISO/IEC 12207:2008 / IEEE Std 12207™-2008	Systems and software engineering – Software life cycle processes, 2nd Edition, Geneva: International Organization for Standardization, 1 February 2008
Defense Acquisition University	<u>Integrated Defense Acquisition, Technology, and Logistics Life Cycle Management System</u> , Version 5.4
IEEE/EIA 12207.1-1997	Industry Implementation of International Standard ISO/IEC 12207 1995, Software life cycle processes—Life cycle data, April 1998
DESMF	DoD Enterprise Service Management Framework

14.1 Travel

There is significant travel associated with Software deployment on ships. The contractor will provide a schedule of travel requirement to the COR prior to travel being booked.

The Contractor shall be reimbursed for the reasonable actual cost of transportation, lodging, meals and incidental expenses when required to travel for this contract. Actual costs shall be considered reasonable, allowable, and reimbursable only to the extent that they do not exceed on a daily basis the maximum per diem rate in effect at the time of travel as set forth in the DOD Joint Travel Regulations (JFTR) located at <http://www.defensetravel.dod.mil/>. Actual cost does not include handling charges, general and administrative cost, overhead, profit or any other indirect cost.

The Contractor shall use the allowable GOV personnel rates for transportation and lodging. Reimbursement for airfare shall not exceed the lowest customary standard, coach, or equivalent airfare quoted during normal business hours. The Contractor will not be reimbursed for travel expenses unless audited records for transportation contain evidence, such as original receipts, substantiating actual expenses incurred for travel. In no event will reimbursement exceed the published rates of common carriers.

Reimbursable travel costs include only that travel performed from the Contractor's facility to the worksite, in and around the worksite, and from the worksite to the Contractor's facility. Reimbursable travel costs do not include cost associated with moving employees overseas for long-term employment or travel costs incurred in replacement of personnel when such replacement is accomplished for the Contractor's or employee's convenience.

14.2 Duty hours

Although Business System is a five days a week/eight hour day typical duty hours, certain aspects require support outside the normal duty hours (0600-2000, e.g. operations, service desk, CEDC) with 24x7 on call responsibilities (e.g. outages). The contractor will ensure that a plan is provided that covers support within the stated duty hours (e.g infrastructure and operations) as well as on call responsibilities.

14.3 Information Assurance/Cybersecurity

The contractor shall comply with the latest MSC Information Assurance/Cybersecurity Policy. Current policy is detailed in MSC Instruction COMSCINST 5239.3. Compliance with this directive is mandatory during the execution of this PWS.

The contractor shall ensure all staff comply with the certification requirements identified in Department of Defense (DoD) Directive 8140.01, Cyberspace Workforce Management and SECNAVINST 5239.20A DON Cyber IT and CSWF Management and Qualification. The contractor shall prepare a cybersecurity workforce (CSWF) report semi-annually that describes the current CSWF level for each contract team member, certification status, and number of hours of training completed for the calendar year. The report shall be updated and delivered upon staff replacement as well.

15. Post-Award Administration

A Quality Assurance Plan (QAP) will be developed by the contractor during the 2 month period after contract award and finalized during the conference. The QAP will correlate to the deliverables identified in this SOW with appropriate measures and metrics established and put in place at the conference two months after contract award.

16. Key Personnel

The Contractor agrees to assign to this contract those key personnel listed below. No substitutions shall be made except in accordance with this clause. (2) The Contractor agrees that during the first 180 days of the contract performance period no personnel substitutions will be permitted unless such substitutions are necessitated by an individual's sudden illness, death or termination of employment. In any of these events, the contractor shall promptly notify the Contracting Officer and provide the information required by paragraph (3) below. After the initial 180 day period, all proposed substitutions must be submitted in writing, at least fifteen (15) days (thirty (30) days if a security clearance is to be obtained) in advance of the proposed substitutions to the contracting officer. These substitution requests shall provide the information required by paragraph (3) below. (3) All requests for approval of substitutions under this contract must be in writing and provide a detailed explanation of the circumstances necessitating the proposed substitutions. They must contain a complete resume for the proposed substitute or addition, and any other information requested by the IPT Lead and/or Contracting Officer or needed by him/her to approve or disapprove the proposed substitutions. All substitutions proposed during the duration of this contract must have qualifications that are equal to or exceed the qualifications of the key position as stated in the SOW. The IPT Lead and Contracting Officer or his/her authorized representative will have the option to

evaluate such requests and promptly notify the contractor of his/her approval or disapproval thereof in writing. Exceptions submitted by the contractor in regards to the experience and education criteria will be determined by the IPT Lead on a case by case basis.

List of Key Personnel

There are three key personnel for the work; Program Manager, Deputy Technical Manager, Deputy Program Manager. Deputy Technical Manager and Deputy Program Manager support the contract PM and provide backup when not available. Although not key personnel all IPT members will be required to have the same minimum qualifications as the Deputy Technical Manager or the Deputy Program Manager depending on their alignment to tasks within the IPT. Exceptions to the IPT qualifications will be treated on a case-by-case basis between the vendor PM and IPT Lead.

Program Manager: responsible for executing the activities of the contract.

1. Description of Labor Category. The Project Manager serves as the contractor's single contract manager and shall be the contractor's authorized interface with the Government Contracting Officer (CO), the Contracting Officer's Representative (COR), and government management personnel. He is responsible for all technical and managerial aspects of contract performance including implementation, technical assistance and life-cycle support of all MSC programs supported. The project manager shall have authority over the resources necessary to accomplish the work; provide information technology expertise and have communications skills to be able to interface with all levels of management; establish policies and procedures for achieving the standards required for contract performance; assign, schedule, direct and control work effort of technical and functional specialists; ensure conformity of work to prescribed standards; approve correspondence which expresses the contractor's policy, performance status, schedule and funding estimate

2. Education Requirement. Shall have a Bachelor's Degree in Management Information Systems, Computer Science or Mathematics or related quantitative field. Prefer to have a Master's Degree in Engineering, Computer Science, Mathematics, Management Information Systems, Business Administration, or Project Management.

3. Experience Which Demonstrates Qualification for Labor Category. The following experience is required in addition to the education requirement.

a. General Experience. Shall have demonstrated technical and managerial leadership in the scope and depth of tasks described in the Statement of Work. Shall have fifteen (15) years of experience directly related to the implementation and maintenance of management information systems of which ten (10) years must be specialized.

b. Specific Experience. Shall have, within the general experience requirement, ten (10) years of specialized experience that includes: complete project development from inception to deployment; proven expertise in the management and control of funds and resources; demonstrated ability to manage multi-task information systems development projects. Within the ten (10) years specialized experience, shall have five (5) years progressive experience as a senior-level manager of a technical, computer-oriented work force of at least fifty (50) people working through at least two (2) levels of supervision.

c. Specific experience may have been gained concurrently with General Experience.

Deputy Technical Manager.

This position supports the Program Manager and able to fill in for the PM within the vendor organization as well as interfacing with the MSC PM/COR. The criterion for this category is to be used for all technical personnel supporting the IPT. The IPT support is responsible for executing the activities of the SOW IAW section 5.1.13 for all technical activities. As a minimum the IPT Technical Lead, System Engineer, Software Engineers, Configuration Manager, and Enterprise Architect will be required to meet these minimum requirements.

1. Description of Labor Category. Deputy Technical Manager provides support to the Military Sealift Command (MSC) Business Systems Integrated Product Team (IPT) to provide overall technical guidance for stakeholders and to those providing support to the Business Systems IPT. The Deputy Technical Manager is responsible for establishing guidelines for all technical aspects of contract performance under the leadership of the IPT Lead, including implementation, technical assistance and life-cycle support of all Business Systems applications and infrastructure within their area of expertise. The Deputy Technical Manager shall provide information technology expertise, establish standards required for performance, establish policies and procedures required by the

Business Systems IPT, and support the IPT Lead in communicating with all levels of management across the Business Systems stakeholder community.

2. Education Requirement. Shall have a Bachelor's Degree in Engineering, Computer Science, Mathematics or related quantitative field. Prefer to have a Master's Degree in Engineering, Computer Science, Mathematics, or quantitative sciences.

3. Experience Which Demonstrates Qualification for Labor Category. The following experience is required in addition to the education requirement.

a. General Experience. Shall have demonstrated technical and managerial leadership in the scope and depth of tasks described in the Statement of Work. Shall have ten (10) years' technical experience directly related to software/system development of which seven (7) related to the implementation and maintenance of management information systems and or software intensive systems.

b. Specific Experience. Shall have, within the general experience requirement, five (5) years specialized experience that includes: system development from with emphasis on the functions they are qualifying as a SME.

c. Specific experience may have been gained concurrently with General Experience. Education Requirement identified above can be used as contributing part of the general experience.

Deputy Program Manager

This position supports the Program Manager and able to fill in for the PM within the vendor organization as well as interfacing with the MSC PM/COR. The criterion for this category is to be used for all programmatic personnel supporting the IPT and should be reflected in the resource plan. The IPT support is responsible for executing the activities of the SOW IAW section 5.1.13 for all program activities. All personnel not required to meet the Technical support requirements will be required to meet the below requirements.

1. Description of Labor Category. The Deputy Program Manager provides support to the Military Sealift Command (MSC) Business Systems Integrated Product Team (IPT) Lead and partners with the government in the operational planning, establishment, execution and evaluation of the MSC Business Systems programs and associated activities in all things related to cost, schedule, and performance.

The Deputy Program Manager is responsible for establishing guidelines for all programmatic aspects of contract performance under the leadership of the IPT Lead, including but not limited to: Earned Value, IMS, Risk Management, Requirements Management, Info Assurance, and process measurement and control. The Deputy Program Manager shall provide earned value management expertise, establish standards required for performance, establish policies and procedures required by the Business Systems IPT, and support the IPT Lead in communicating with all levels of management across the Business Systems stakeholder community.

2. Education Requirement. Shall have a Bachelor's Degree, PMP certification or equivalent certification relevant to their discipline preferred.

3. Experience Which Demonstrates Qualification for Labor Category. The following experience is required in addition to the education requirement.

a. General Experience. Shall have demonstrated programmatic and managerial leadership in the scope and depth of tasks described in the Statement of Work. Shall have ten (10) years' experience directly related to programmatic functions of which seven (7) related to the implementation and maintenance of management information systems and or software intensive systems.

b. Specific Experience. Shall have, within the general experience requirement, five (5) years specialized experience that includes: complete project development from inception to deployment, demonstrated ability to manage multi-task information systems development projects, and experience working within a PMO/CDA/IPT construct with emphasis on the functions they are qualifying as a SME.

c. Specific experience may have been gained concurrently with General Experience. PMP certification can be used as contributing part of the general experience.

17. Quality Assurance Surveillance Plan

Integrated Logistic Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Program Management Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Risk Management Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Requirement Management Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Configuration/Change Management Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Quality Assurance Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Information system Security Design and Configuration Support Standard Operating Procedures	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Information Assurance Management Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Production Support Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
System Maintenance Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Training Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Technical Management Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Release Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Install Support Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Test Evaluation Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Software Development Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan

Data Management Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Business Intelligence Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Resource Allocation Plan	Compliance	Achieve and maintain 100% compliance for base year updated annually
Operations Support Plan	Compliance	Achieve and maintain 100% compliance during required phases of the life cycle as defined within the plan
Transition Plan	Compliance	Achieve and maintain 100% compliance during transition periods phase in and phase out
Studies	Compliance	Achieve and maintain 100% compliance within the individual task
Development Plan and Cost	Compliance	Achieve and maintain 100% compliance within the individual task

(End of Summary of Changes)